## ABSTRACT OF THE INVENTION

A system, called the Laser Aim Scoring System, and method for automatically scoring gunner training sessions for simulated laser-guided missile, target engagements using the laser designator without the need for training or tactical rounds are disclosed. In the disclosed invention, a pop-up target and its surrounds are separately monitored for radiations at the laser designator frequency. "Hit" or "Miss" scoring is based on detection of the laser radiation at the laser designator frequency illuminating the appropriate region around or on the target at the appropriate time with respect to a simulated missile launch signal at the start of the training engagement, in accordance with the engagement profile programmed into the scoring computer prior to the start of training. The laser aim scoring system send a signal to lower the pop-up target in response to a "Hit" score, and if desired by the user, also sends a signal to initiate smoke and flash signals from a Hoffman Kill Simulator interfaced with the system. The disclosed invention also sends the appropriate signals at the end of the engagement to reset the target in the upright position so that it is ready for the next engagement. The disclosed invention includes subsystems for transmitting data, video imagery, and control signals between the portion of the system at the target location and the portion of the system at the control tower.